



# Epidemiologic Notes & Reports

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## Kentucky Annual Vital Statistics Report 1996

The newest report of vital events that occurred in Kentucky or that happened to Kentucky residents in 1996 is now available from the Health Data Branch, Division of Epidemiology and Health Planning. Tables in the *Kentucky Annual Vital Statistics Report 1996* display data on resident births, deaths, marriages and divorces.

### RACIAL CLASSIFICATIONS

The 1996 report, as well as other Branch reports, will incorporate a change in presentation of data by racial classifications to white+other and black from white and nonwhite. The change is due to a slight systematic error in the calculation of birth and death rates by racial classification in the *Kentucky Annual Vital Statistics Report* from 1992 through 1995.

### Traditional Categories: White and Nonwhite

The Health Data Branch (which is the State Center for Health Statistics) receives yearly population estimates from the Kentucky State Data Center, University of Louisville. The Data Center is the sole source of population estimates used to calculate rates in all Branch databases and publications. Traditionally, the Data Center provided estimates in two racial categories, white and nonwhite. Although racial classifications for vital events themselves (births, deaths, marriages, and divorces) are more specific (e.g., white, black, Amerindian, Chinese, etc.), these categories have consistently been collapsed in order to calculate rates appropriate to the denominators of the white and nonwhite populations. Thus, white and nonwhite rates have been published in the *Kentucky Annual Vital Statistics Report* for many years.

When Branch staff received the estimates for 1992, they noticed discrepancies from what they had expected, and questioned their accuracy. The Data Center replied that the population model had been changed to produce estimates by two new classifications, black only, and white plus all other. In order to maintain consistency with past years, the Branch asked to continue to receive estimates by the white and nonwhite classifications. A slightly revised population file

## Inside This Issue

Kentucky Annual Vital Statistics .....1-2	
Report 1996 & Racial Classifications	
Drugs for Scabies Treatment .....2	
Animal Rabies in Kentucky - 1997 .....3-4	
Selected Reportable Diseases .....5	
Welcome: Stephen W. Wyatt, DMD.....6	

was received from the Data Center, and Branch staff believed that the file had been reformatted to fit their request. The file was used for subsequent estimates through 1995.

### Errors in 1992 - 1995 Estimates

When the Branch staff began to provide health assessment data to local health departments in 1996, they were asked if they could provide data exclusively for the black population. Early last year, in anticipation of conducting a five year analysis of birth, death, and other data, they requested estimates of the white+other and black populations for 1991 through 1995 from the Data Center. They received estimates according to the white+other and black estimation model. The 1992-1995 estimates were identical to what they had thought to be white and nonwhite estimates, thus confirming that the estimates they had been using since 1992 had been misidentified. This discovery meant that there had been a systematic error in the rates by racial classification in the *Annual Vital Statistics Report* and other Branch reports beginning in 1992.

Those who had requested that the Health Data Branch provide statistics for the black population alone had reasoned that the true black indicators were masked within the nonwhite classification, and, if they could be isolated, would yield rates higher than those for the remaining nonwhite-nonblack population for many indicators, such as death rates and teenage birth rates. It was generally

## Annual Vital Statistics Report (Continued from page 1)

assumed that the nonwhite statistics, when used as a surrogate for the black, presented a picture better than reality. In fact for areas where a sufficient number of events involving nonwhites other than blacks occurred, the resulting rates were higher than what was true for either the entire nonwhite population or the black population alone.

Fortunately however, due to the demographics of the nonwhite population, the error has been very slight in all but a few areas. In most Kentucky counties, the numbers of nonwhite persons and vital events involving individuals who are not black are so rare that the published nonwhite rates are virtually, if not exactly, identical to the black rates. According to the 1990 census, 89.6% of nonwhite Kentuckians were black, and in many counties, the nonwhite and black populations were virtually identical. In recalculating 1995 birth and death rates for the black population alone for comparison to the published nonwhite rates, it was found that only 9.5% (559 / 5,892) of nonwhite births and 2.2% (61 / 2,754) of nonwhite deaths were of non-blacks.

### Both Classification Models Tested

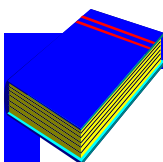
For a more precise measure of the magnitude of the error, a test of statistical significance was conducted comparing the 1995 crude birth and death rates for Kentucky, the 15 Area Development Districts (ADDs), and the 120 counties by the two classification models: white to white+other, and nonwhite to black. No statistically significant differences were found at the  $p = 0.05$  level between the white and white+other crude birth rates, white and white+other crude death rates, or nonwhite and black crude death rates. The only significant differences were between the nonwhite and black birth rates in: Kentucky in

aggregate, the Kentuckiana ADD, the Northern Kentucky ADD, the Bluegrass ADD, Jefferson County, Kenton County, and Fayette County. Only two of these areas, the Northern Kentucky ADD and Kenton County, exceeded a difference of 2.5 births per 1,000 population. Statewide, the black rate was 19.1, and the nonwhite rate was 21.1, a difference of 2.0 births per 1,000 population.

### New Categories: White+other and Black

The Health Data Branch will calculate future rates according to the white+other and black racial classifications, consistent with the classifications of the denominator populations. However, as this analysis has shown, with a few exceptions, reasonably reliable comparisons between most white and white+other rates, and between most nonwhite and black rates can be made. The five-year analysis currently underway will be based on rates calculated according to the new white+other and black classifications, so accurate comparability will be possible for many major health indicators from 1991 through 1995 and beyond.

For 1997, the Data Center plans to issue population estimates in three categories: white, black, and all other. Such a disaggregation will allow greater user flexibility in handling the "other" population, but may also necessitate a major redesign of the *Annual Vital Statistics Report* and other Health Data Branch publications.



### Information request . . .

Anyone desiring more information about the change in racial classifications may contact George Robertson at 502-564-2757 or by E-mail at grobert1@mail.state.ky.us. For copies of the *Kentucky Annual Vital Statistics Report 1996* write to: Health Data Branch, Division of Epidemiology & Health Planning, Mail Stop HS1E-C, 275 East Main Street, Frankfort, KY 40621-0001 or call 502-564-2757.



## Informational update . . . Drugs for Scabies Treatment

The following information updates the recommendations for the treatment of scabies that were previously published in the January/February, 1996 issue of *Kentucky Epidemiologic Notes and Reports*.<sup>1</sup>

The drug of choice remains 5% permethrin cream. Alternative recommended drugs are ivermectin and 10% crotamiton. Although ivermectin is an approved drug, it is considered an investigational drug for the treatment of scabies by the U.S. Food and Drug Administration.<sup>2</sup>

Upon request the Kentucky Department for Public Health, Communicable Disease Branch, will still provide guidelines to facilities experiencing endemic scabies. Please call 502-564-3261 to request a copy of the guidelines or for consultation regarding scabies treatment and management.

### REFERENCES:

- <sup>1</sup> Kentucky Department for Public Health. Update: Treatment of scabies. *Kentucky Epidemiologic Notes & Reports* 1996; 31 (1 & 2): 4.
- <sup>2</sup> The Medical Letter Inc. Drugs for parasitic infections. *The Medical Letter* 1998; 40 (1017): 8.

### Animal Rabies in Kentucky - 1997

In 1997, the Division of Laboratory Services and the Breathitt Veterinary Center received 1726 animal specimens for testing. Some samples (70) were unsuitable for testing due to decomposition or extreme traumatic damage to the brain. Of the remaining 1656 specimens, 29 (1.8%) tested positive for rabies. The majority of cases (24 or 82.8%) were wildlife; 5 (17.2%) of the positive cases were in domestic animals. As usual, skunks were the majority (65.5%) of rabid animals found by our laboratories and also the highest percent positive for any given species. (Table 1.)

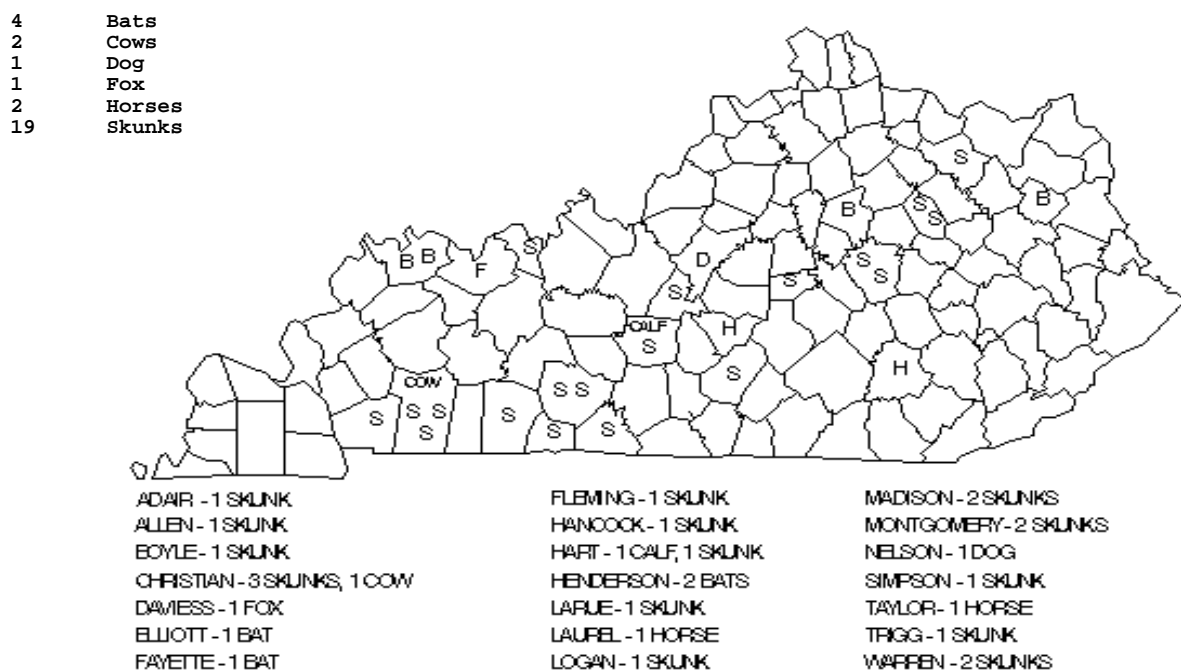
**Table 1. Species Distribution of Rabies Specimens, 1997**

	Dogs	Cats	Other Domestic	Bats	Skunks	Other Wildlife
Number Tested	552	462	157	127	59	338
Number Positive (%)	1 (0.2)	0 (0.0)	4* (2.5)	4 (3.1)	19 (32.2)	1** (0.3)

\*2 horses, 2 cattle \*\*1 fox

The annual total of 29 rabies cases is very similar to the preceding 5-year mean of 29.8 rabies cases. The statewide distribution pattern of positive rabies cases shown in Figure 1 may not be truly representative of rabies activity in the state but only reflects the distribution of samples submitted for testing. Almost all the samples submitted were due to suspicious interaction between the animal tested and either a human or domestic animal.

**Figure 1. 1997 Rabies Cases in Kentucky**



(continued on page 4)

### **Ooops. . .**

We made a mistake. An error was made in the March 1998 issue of *Kentucky Epidemiologic Notes & Reports* in the Head Lice Update article on page 3. The reference in the first paragraph should be the October, 1993 issue of *Kentucky Epidemiologic Notes & Reports*, not the December, 1993 issue. The article is correctly cited in the reference list. We regret any inconvenience to our readers.

**Animal Rabies** - continued from page 3

One notable difference in the pattern of distribution in the samples submitted was for bats; 2.5 times as many bats were tested this year as in 1996. Increased bat testing is probably due to a new 1997 recommendation by The Centers for Disease Control and Prevention (CDC) for postexposure prophylaxis (PEP) regarding bat incidents. From 1980-1997 there were 22 cases of human rabies as a result of infection acquired within the U.S. Of these 22 cases, 19 were due to bats. Only 1 of these cases had a definite history of a bat bite and only 8 others had any history of a potential bat exposure incident.<sup>1</sup> CDC issued its PEP recommendation because of these "cryptic exposures" to bats that resulted in rabies infection. PEP should be administered to anyone who had contact with a suspect bat whenever direct contact with the bat cannot be disproven, and the bat cannot be tested negative for rabies. The recommendation also includes situations where the person potentially exposed cannot give a reliable history (e.g., finding a bat in the room with a sleeping infant, or someone who is mentally or physically unable to provide necessary information).

Raccoon rabies continues to be a problem for all the eastern states, and now, northeast Ohio. Kentucky's laboratories have not found a rabid raccoon since 1991, and that case was most likely a spillover of skunk rabies. Although Kentucky tested 169 raccoons for rabies last year, there were no submissions of raccoons from any eastern counties adjacent to West Virginia or Virginia which are both undergoing a raccoon rabies epizootic. The lack of specimens from those counties may reflect a low raccoon population in the mountain areas due to a lack of desirable habitat, hunting and trapping practices, existence of other fatal epizootics (e.g. distemper), or a combination of these and other factors.

The necessity of vaccinating domestic animals, particularly dogs and cats, is extremely important to prevent the spread of wildlife rabies into the human population. There is an approved vaccine available for ferrets which should be administered to all pet ferrets. (*The Compendium of Animal Rabies, 1998*<sup>2</sup>, now recommends a 10 day observation period for biting ferrets the same as the recommended observation period for biting dogs and cats.) Other rabies vaccines are available for the protection of horses, cattle, and sheep, and their use may be desirable if wildlife rabies is a problem in the area. No approved rabies vaccines are available for wildlife including wolf hybrids; keeping of any wildlife or wildlife hybrid as a pet is strongly discouraged. An oral vaccine used to control wildlife rabies epizootics was approved in 1997, but is restricted to use by state and federal agencies for the control of selected epizootics.

**Beginning June 16, 1997, rabies postexposure prophylaxis (PEP) became a reportable event in Kentucky.** The new surveillance activity was mandated to estimate the financial impact of this public health intervention. Also, surveillance of PEP will allow the Department for Public Health to: a) follow trends in PEP administration; b) look for changes in the number of human exposures due to an increase in rabid or suspected rabid animals, and; c) serve as an early warning of any rabies epizootics. **Both private and public reporters should use the Kentucky Reportable Disease Form. The reverse side of the form has a section for supplemental information regarding the circumstances of the bite, testing of the animal, and questions that may be useful in determining if PEP is indicated.**

**REFERENCES**

- 1 CDC. Human rabies-Montana and Washington, 1997. MMWR 1997; 46: 770-3.
- 2 Jenkins SR, Auslander M, Johnson RH, et al. Compendium of animal rabies control, 1998. J Am Vet Assoc 1998; 212: 213-7.

**HIV VIRAL LOAD TESTING & INTERPRETATION****June 5, 1998****8:00 AM - 11:30 AM****NORTON-KOSAIR HOSPITAL****Amphitheater****Louisville, Kentucky**

Mark your  
calendar

Registration information: Call Jane Clark at 800-536-6586 or 615-262-6389 or Donna Clinkenbeard at 502-564-4446.

This viral load seminar is not intended to replace or substitute for the HIV training required by the Kentucky Revised Statutes KRS 214.610 and KRS 214.615.

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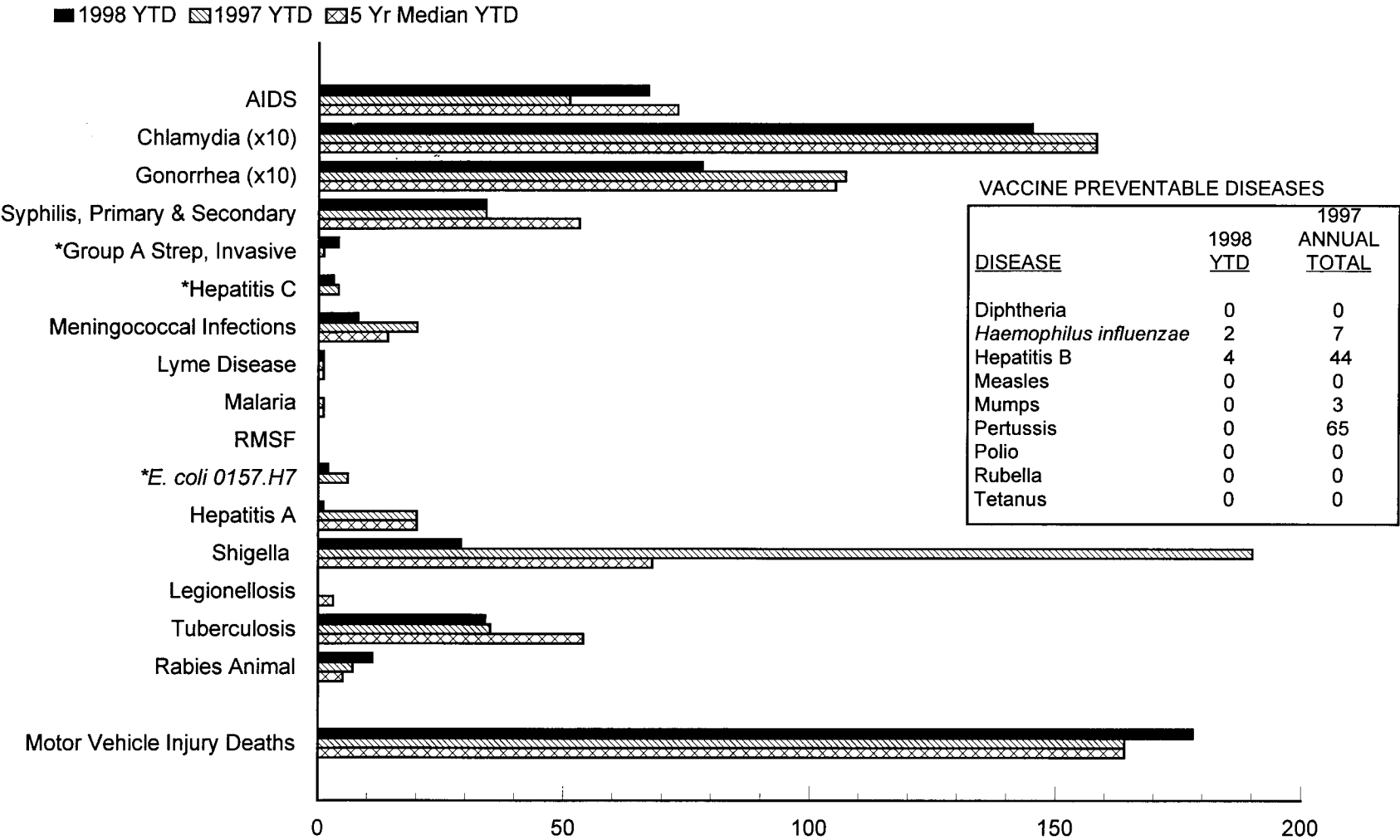
Welcome. . .

**Stephen W. Wyatt, DMD, Assigned to Kentucky**

The Centers for Disease Control and Prevention has agreed to a long term assignment for Stephen W. Wyatt, DMD, to the Kentucky Department for Public Health beginning in the summer of 1998. Dr. Wyatt will serve as a senior consultant to the commissioner to assist with controlling chronic diseases, reducing cancer incidence and mortality, and improving dental health. Also, he will help the Department strengthen its relationship with the Kentucky Cancer Center. Having his expertise and experience available here at the same time Governor Patton established the Breast Cancer Control Task Force provides an unique opportunity to improve the health of our citizens.

Dr. Wyatt is currently the Director, Division of Cancer Prevention and Control, an organization he helped establish in 1991 and which he has guided through significant expansion and national recognition. As a commissioned officer in the United States Public Health Service he has gained extensive experience in many aspects of chronic disease prevention and cancer control. He is a native of Owensboro and a graduate of the University of Kentucky College of Dentistry. We look forward to Dr. Wyatt's joining the Kentucky Department for Public Health's team.

CASES OF SELECTED REPORTABLE DISEASES IN KENTUCKY, YEAR TO DATE (YTD) THROUGH MARCH 1998



\*Historical data are not available.  
Disease numbers reflect only those cases which meet the CDC surveillance definition.  
Contributed by: Patricia Beeler, Surveillance & Investigations Branch.

Note: Report to your local health department.  
For weekends, holidays, and emergency calls, please contact the Kentucky Department for Public Health at 502-564-4679.